

CLAIMS

What is claimed is:

1. A projection display system comprising:

a projector to project light to form an image; and

a screen to receive the projected light and display the image,

to process user control signals input to the screen by a user and to transmit the user control signals to the projector,

the projector operating according to the user control signals transmitted by the screen.

2. The projection display system of claim 1, wherein:

the screen receives a first video signal, a first audio signal, and a television signal, generates a sound based on the first audio signal and a second audio signal derived from the television signal, and radio transmits the first video signal and a second video signal derived from the television signal to the projector, and

the projector processes the first and second video signals transmitted by the screen to project the light to the screen to display the image thereon.

3. The projection display system of claim 2, wherein the screen comprises:

a signal input/output port having a video signal input terminal to input the first video signal, an audio signal input terminal to input the first audio signal, and a television signal input terminal to input the television signal;

a tuner to tune the television signal input to the television signal input terminal based on a tuning control signal, to generate the second audio signal and a first radio frequency image signal;

a modulator/transmitter to radio transmit the first radio frequency image signal to the projector;

an audio signal processor to process the first and second audio signals and generate a processed audio signal therefrom;

a speaker to generate the sound based upon the processed audio signal;

a first remote receiver to receive the user control signals ;

a main controller to process tuning and sound control signals of the user control signals output from the first remote receiver to control the tuner and the audio signal processor and to process and output projection-image control signals of the user control signals output from the first remote receiver; and

a first remote transmitter to radio transmit the projection-image control signals output from the main controller to the projector.

4. The projection display system of claim 3, wherein the modulator/transmitter modulates the first video signal input to the video signal input terminal into a second radio frequency image signal, and the projector comprises:

a receiver/demodulator to receive and demodulate the second radio frequency image signal into a third video signal and to output the third video signal;

a video signal processor to process the third video signal to generate display driving signals;

a second remote receiver to receive the projection-image control signals output from the first remote transmitter;

a projection controller to control the operation of the video signal processor according to the projection-image control signals received by the second remote receiver; and

a projection output part to project the light onto the screen to create the image according to the display driving signals generated by the video signal processor.

5. The projection display system of claim 1, wherein the projector is behind the user.
6. A projection display system, comprising:
a projector to generate an image; and
a screen to display the image, and to transmit control signals received from a user to the projector,
the image being generated according to the transmitted control signals.
7. The projection display system of claim 6, wherein:
the screen receives a first video signal, a first audio signal, and a television signal,
generates a sound based on the first audio signal and a second audio signal derived from the television signal, and transmits the first video signal and a second video signal derived from the television signal to the projector, and
the projector processes the first and second video signals transmitted by the screen to generate the image.
8. The projection display system of claim 7, wherein the projector is behind the user.
9. A system to display an image on a screen based upon control signals transmitted from a user to the screen, the system comprising:
a projector to generate the image according to the transmitted control signals.
10. The system of claim 9, wherein the screen receives a first video signal, a first

audio signal, and a television signal, generates a sound based on the first audio signal and a second audio signal derived from the television signal, and radio transmits the first video signal and a second video signal derived from the television signal to the projector, wherein:

the projector processes the first and second video signals transmitted by the screen to project the image to the screen to display the image thereon.

11. A system to display an image projected by a projector based upon control signals transmitted from a user, the system comprising:

a screen to display the image, receive the control signals from the user, and transmit the control signals to the projector.

12. The system of claim 11, wherein the projector processes a first video signal and a second video signal derived from a television signal, the first and second video signals transmitted by the screen to project the image to the screen to display the image thereon, wherein:

the screen receives the first video signal, a first audio signal, and the television signal from an external source, generates a sound based on the first audio signal and a second audio signal derived from the television signal, and radio transmits the first video signal and the second video signal to the projector.

13. The system of claim 12, wherein the screen comprises:

a signal input/output port having a video signal input terminal to input the first video signal, an audio signal input terminal to input the first audio signal, and a television signal input terminal to input the television signal;

a tuner to tune the television signal input to the television signal input terminal based on

a tuning control signal, to generate the second audio signal and a first radio frequency image signal;

a modulator/transmitter to radio transmit the first radio frequency image signal to the projector;

an audio signal processor to process the first and second audio signals and generate a processed audio signal therefrom;

a speaker to generate the sound based upon the processed audio signal;

a first remote receiver to receive the user control signals;

a main controller to process tuning and sound control signals of the user control signals output from the first remote receiver to control the tuner and the audio signal processor and to process and output projection-image control signals of the user control signals output from the first remote receiver; and

a first remote transmitter to radio transmit the projection-image control signals output from the main controller to the projector.

14. The projection display system of claim 13, wherein the modulator/transmitter modulates the first video signal input to the video signal input terminal into a second radio frequency image signal, and the projector comprises:

a receiver/demodulator to receive and demodulate the second radio frequency image signal into a third video signal and to output the third video signal;

a video signal processor to process the third video signal to generate display driving signals;

a second remote receiver to receive the projection-image control signals output from the first remote transmitter;

a projection controller to control the operation of the video signal processor according to the projection-image control signals received by the second remote receiver; and

a projection output part to project the light onto the screen to create the image according to the display driving signals generated by the video signal processor.

15. A method of projecting an image, comprising:

transmitting control signals from a user to a display;

transmitting the control signals from the display to a projector;

projecting an image from the projector according to the control signals; and

forming the image on the display.

16. The method of claim 15, further comprising:

receiving a first video signal and a television signal at the display;

transmitting the first video signal and a second video signal derived from the television signal to the projector; and

processing the transmitted first and second video signals to form the image.

17. The method of claim 16, further comprising:

receiving a first audio signal at the display;

generating a second audio signal from the television signal;

processing the first and second audio signals; and

generating a sound from the processed first and second audio signals.